# BARRICK

## BARRICK RESOURCES (USA), INC.

March 13, 1992



DIVISION C.F OIL GAS & MINING

Mr. Don A. Ostler, P.E. Director Division of Water Quality Utah Department of Environmental Quality Salt Lake City, Utah 84114-4870

Dear Mr. Ostler:

Subject: Docket Number GW92-02, Notice of Violation and Order

Barrick Resources (USA), Inc. ("Barrick") received on February 28, 1992, the above referenced notice of violation and order. In response to paragraph 2 of the order, please find attached the document entitled:

"Material Release Written Report, February 21, 1992. Amended March 13, 1992. Barrick Resources (USA), Inc., Mercur Gold Mine."

This document was originally submitted to the Division February 24, 1992 as a follow-up written report to the February 17, 1992 release event initial written notification. The document has been further updated and is herewith submitted as an explanation of the release event and a full disclosure of actions taken, planned, or scheduled to be taken to achieve compliance with the Order.

Please contact me should you have any questions concerning this response. Additional information from Barrick is currently being prepared and will be submitted according to or in advance of the notice schedule.

Mr. Don A. Ostler, P.E. March 13, 1992
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The information contained in this letter or the attached report shall not be deemed to be an admission of liability by Barrick.

Sincerely,

Frank D. Wicks

Vice President and General Manager

FDW/cg

Enclosure

cc: Ken Alkema (Utah DEQ)

Doug Crudell (Assistant Attorney General)

Ken Bousefield (DDWQ)
Wayne Hedberg (Utah DOGM)
Glade Shelley (Utah County)
Joe Trujillo (Tooele County)

Lucy Jenkins (Parsons Behle and Latimer)

## BARRICK RESOURCES (USA), INC. MERCUR GOLD MINE

## Material Release Written Report February 21, 1992 Amended March 13, 1992

## Owner/Address of Facility:

Barrick Resources (USA), Inc. Mercur Gold Mine P.O. Box 838 Tooele, Utah 84074

## **Facility Contact/Telephone:**

Frank D. Wicks Vice President and General Manager (801) 268-4447

## Location of Facility:

Mercur Canyon Road Tooele County, Utah S5,6,7,T6S,R3W SLBM S32,T5S,R3W SLBM

## **Date of Reportable Material Release:**

February 17, 1992

## Identity of Reportable Material Released:

Dilute sodium cyanide solution. Sodium cyanide is an EPCRA extremely hazardous substance.

#### **Duration of Reportable Material Release:**

Based upon operator reports and physical evidence, it is estimated that the release occurred between the hours of 6:30 a.m. and 11:45 a.m. on February 17, 1992.

## **Quantity of Reportable Material Released:**

Based upon observed and calculated information, it is estimated that approximately 308,700 gallons of dilute cyanide solution (10-15 ppm NaCn) were released. At this gallonage, approximately 60 pounds of sodium cyanide equivalent were released. It is estimated that only 60% of these quantities were released beyond the Mercur property boundary, based on flow channel lengths and ponding.

## Regulatory Identification:

UPDES Permit Number UT-0023884 Outfall Numbers 003 and 008

## **Agency Notification Measures:**

- \* National Response Center 2-17-92/2:55 p.m./Report No. 107100/Oral
- \* Utah Division Environmental Response/Remediation 2-17-92/3:15 p.m./Oral/Jerry Ripley
- \* U.S. EPA Region VIII 2-17-92/3:30 p.m./Oral/Floyd Nichols (Per NRC)
- \* Utah Division Water Quality 2-18-82/9:00 a.m./Oral/Dennis Frederick (Per UT DERR)
- \* Utah Division Water Quality 2-18-92/11:30 a.m./Written & Site Inspection/Dennis Frederick & Mark Schmitz
- \* Tooele County Health Department 2-18-92/3:55 p.m./Written/Kari Sagers
- \* Utah County Health Department 2-18-92/4:15 p.m./Written/Glade Shelley
- \* Utah Division Environmental Response/Remediation 2-19-92/9:15 a.m./Written/Jerry Ripley
- \* Utah Division Water Quality 2-29-92/2:00 p.m./Oral Update/Dennis Frederick

- \* Utah Division Water Quality 3/05/92/1:45 p.m./Fax Written Compliance with Order Paragraph 3 & 4
- \* Property and Water Appropriation Notification(s) 3/10/92/Letter/Compliance with Order Paragraph 7

## Cause/Description of Material Release:

The cause of the release was the inadvertent siphoning of dilute sodium cyanide solution from an inactive component cell within the tailings impoundment. The solution, consisting primarily of precipitation, accumulated in the inactive cell. Substantial amounts of recently received precipitation caused the solution level to rise in the cell. An open, inactive piping system was overtopped, creating a siphon which resulted in the discharge from the cell.

#### Medium Into Which Release Occurred:

The dilute cyanide solution immediately discharged to a lined valve sump. The majority of the solution over-topped the sump and flowed down gradient. A minority of the solution drained to a lined collection pond. The majority flow traveled down gradient along an earthen roadway, mixing with road sediment and snowpack until eventual release to natural drainage. The minority flow filled and eventually over-topped the lined collection pond, washed away a portion of embankment, and released to natural drainage.

## **Response Actions Taken:**

The release was stopped at 11:45 a.m. by raising the piping above the solution level in the impoundment cell. Delays in stopping the flow were experienced due to heavy snowpack and deep mud, which slowed mobilization of heavy equipment to the cell site. Extraneous piping was then removed from the cell. Piping left in the cell was equipped with blind flanges. The open valve at the downstream valve pit has been closed and placed in lock-out status. Dewatering of the valve pit and collection pond was completed by February 19, 1992. Surface runoff as a result of warming temperatures on February 17, 1992 was diverted to suitable on-site locations, and interim drainage containment was established.

#### **Nature of Injuries:**

No injuries occurred as a result of this release.

## Known/Anticipated Acute or Chronic Health Effects:

No health effects are either known or anticipated as a result of this release.

#### **Health Precautions:**

No health precautions are necessary as a result of this release.

### Response Measures to be Taken:

Interim runoff containment has been established pending installation of permanent facilities. Erosion prevention measures will be installed in any drainage impacted by the release to minimize additional, significant erosion and/or sediment transport. A program of snowpack and surface runoff water quality sampling has been implemented to document the degree and extent of possible contamination. Attached are results of analyses completed to date for water and snowpack samples. As indicated, the data supports previously stated information and shows the excessively small potential for impacts to public health or the environment.

A program of soil sampling is planned, pending suitable conditions to assess the degree and extent of possible contamination. A program of surface disturbance repair is planned pending suitable weather and field conditions. This program shall include drainage erosion protection and repair, deposited sediment removal or manipulation, and revegetation. Any contaminated sediments recovered will be placed into the tailings impoundment for containment.

#### **Release Reoccurrence Prevention Measures:**

An engineered pumping station will be installed and operational in the inactive impoundment cell by June 1992. Established procedures and schedules will be incorporated into the Mill Department operating procedures. Until the new system is operational, temporary additional pumping capacity is being applied to the dewatering of this cell. All inactive cell piping systems will be evaluated for necessity and either removed or positively secured by plugging, capping, or lock-out. Road maintenance procedures have been revised to accommodate full access via all access routes in a more timely manner to the tailings impoundment area. Mill Department operating report sheets are to be revised to include positive indication that supervisory inspections revealed compliance with environmental procedures.

## Regulatory Agency Distribution:

Utah Department of Environmental Quality Division of Water Quality Salt Lake City, Utah 84114-4870 Attention: Don A. Ostler

Utah Department of Environmental Quality Division of Environmental Response/Remediation Salt Lake City, Utah 84114-4840 Attention: Kent Grey / Jerry Ripley

Utah Department of Environmental Quality Division of Solid/Hazardous Waste Salt Lake City, Utah 84114-4880 Attention: Dennis R. Downs

U.S. Environmental Protection Agency Region VIII 999 18th Street, Suite 500 Denver, Colorado 80202-2405 Attention: Floyd Nichols

Hazardous Waste Management - Emergency Response

Mail Code 8HWM-ER

U.S. Environmental Protection Agency Region VIII 999 18th Street, Suite 500 Denver, Colorado 80202-2405 Attention: Water Management - Compliance Mail Code 8WM-C

Tooele County Emergency Management Department 47 South Main Street Tooele, Utah 84074 Attention: Kari Sagers

Utah County Health Department 589 South State Street Provo, Utah 84601 Attention: Glade Shelley

## TAILINGS RECLAIM RELEASE - February 17, 1992 (06:30...11:45)

## WATER QUALITY ANALYSIS (Mercur Analysis Unless Noted)

	DATE		FREE	ı <del></del>	ı <del></del>	ı <del></del>	ı———	1	1	1	,
	(TIME)	LOCATION	CN-	рН <i>Ш.Л.ІТ</i> <b>5</b>	COND.	TDS Mg/L	cl-	SO4 Mg/L	Ca Ma/L	Na mq/L	Mg Mg/L
	2/17/92 (09:14)	Initial Flow, Back DL#2, Manning Head	13.96	9.19	4500	3664	199	2160	552	612	15
	2/17/92 (09:17)	Valve Sump Disch. Toe of Saddle Dam	14.23	9.34	4500	3780	199	2172	540	632	16
		Saddle Dam, Reclaim Pool	10.64	9.25	4000	3284	193	1848	484	500	11
	2/17/92 (15:30)	Under Snow Pack, Manning 3rd Corner	0.984	8.25	1900						
	2/17/92	Manning Road, 2nd			<b></b>				<u> </u>		i
		Corner, Flow X-ing Mud Pit, Head of	3.01	8.2	4200						
	(08:00)	Manning Road	0.971	7.95	3900						
	2/19/92 (08:30)	Saddle Seepage, Pond Inlet	0.559	8.05	4000						
	2/19/92 (08:45)	Saddle Seepage, Pond Outlet	5.53	8.6	3900						
		Saddle Dam Reclaim Pond, East Side	8.68	9.2	3900	••••					
	2/19/92 (09:00)	Saddle Dam Reclaim Pond, South Side	7.74	9.16	3500	••••					
CHEMTECH		Mud Pit, Head of Manning Road									-
CHEMTECH		Saddle Dam Reclaim Pond, East Side									
	2/28/92 (09:45)	Manning Road, 2nd Corner, Flow X-ing	0.446	8.39	200	••••					
	2/28/92 (10:30)	Under Snow Pack, Manning 3rd Corner	0.878	8.27	500						
	2/28/92 (11:00)	Ditch East of Manning Gate	0.964	8.08	1600						
-			i	<u>-</u>							
-											
].											
	(09:45) 2/28/92 (10:30) 2/28/92	Corner, Flow X-ing Under Snow Pack, Manning 3rd Corner Ditch East of	0.878	8.27	500						

#### **INSERT A**

Notification to Impacted Property Owner and Groundwater Right Holder

The attached notice letter was sent to the company which owns the impacted adjacent property and a downstream groundwater right. For the purpose of identifying potentially impacted groundwater rights, a distance of two miles downstream from the point of release was utilized. There are no surface water right holders within two miles downstream of the point of release.

# BARRICK

## BARRICK RESOURCES (USA), INC.

March 10, 1992

Emil John Company c/o Ron Cutshall, Esq. First Interstate Bank Plaza, Suite 1500 170 South Main Street Salt Lake City, Utah 84101

Dear Mr. Cutshall:

On February 17, 1992, Barrick Resources (USA), Inc. had a brief, accidental discharge of dilute sodium cyanide solution from a small, unused pond adjacent to the tailings impoundment at the Mercur Mine. The discharge, which was mostly water from snowmelt, ran down two drainages and left Barrick's property at Sections 4 and 9. Barrick took immediate steps to control the discharge and stopped it within four hours. Barrick reported the discharge to appropriate governmental agencies and is currently working with the state Department of Environmental Quality to evaluate the environmental impacts, if any, of the discharge.

Barrick is advising you of this incident because you have an interest in nearby property and a nearby groundwater right. Please be assured that Barrick has taken and will continue to take all steps necessary to control any soil erosion and to contain run-off. Barrick will assess and repair any surface damage in late spring or early summer when the weather and surface conditions are suitable.

Please telephone me if you have any questions or require any additional information.

Sincerely,

Frank D. Wicks

Vice President and General Manager

FDW/cg

cc: D. A. Ostler (DWQ)

Glade Shelley (Utah County)

Joe Trujillo (Tooele County)

Lucy Jenkins (Parsons Behle and Latimer)

Doug Crudell (Utah Attorney General's Office)

G. M. Eurick

C. L. Landa